



ION LIGHTING™
architectural lighting & design

ION-KVG-C12300-DWJ ION-KVG-C24288-DWJ

Triac/0-10V/1-10V/Potentiometer/10V PWM 5-in-1
Dimmable led driver
Class 2 muti-channels 288W 300W

Whole family
12VDC 24VDC
180W 192W 288W 300W
Class 2 muti-channels



Class 2
TYPE HL



■Features

- Output constant Voltage, class 2 muti-channels
- UL, cUL listed, Class 2, Type HL
- Range: 100-277VAC
- Built-in active PFC function
- Efficiency up to 91%
- Protections: short circuit/over load/ over temperature
- Cooling by free air convection
- Full protection metal housing, for dry ,damp and wet locations
- Dimming function:
 - Phase dimming: work with forward phase /leading edge ,MLV and Reverse phase /trailing edge ,ELV,TRIAC dimmers
 - 0-10V dimming: 0-10V/1-10V/Potentiometer/10V PWM 4 in 1
 - Dimming range: 0-100%
- Suitable for LED lighting and moving sign applications

■Specification

Model	KVG-C24288-DWJ	KVG-C12300-DWJ	
Certificates	UL cUL FCC		
Output	DC Voltage	24V	12V
	Rated Current	3*4A	5*5A
	Rated Power	288W (3*96W)	300W (5*60W)
	Voltage Tolerance	±0.5V	
	Voltage Regulation	±0.5%	
	Load Regulation	±1%	
Input	Voltage Range	100-277VAC	
	Frequency Range	47-63Hz	
	Power Factor (Typ.) @ full load	0.99@120VAC 0.95@277VAC	0.99@120VAC 0.95@277VAC
	THD (Typ.) @ full load	<20%	
	Efficiency (Typ.) @ full load	87%@120V 91%@277VAC	85%@120V 90%@277VAC
	AC Current (Max.)	3.4A@100VAC	3.6A@100VAC
	Inrush Current (Typ.)	35A,50%,960us @120VAC ; 43A,50%,1ms @277VAC	
	Leakage current	<0.50mA	
Protection	Short Circuit	shut down o/p voltage, re-power on to recover after fault condition is removed	
	Over Loading	≤120% Hiccup mode ,recovers automatically after fault condition is removed	
	Over temperature	100°C±10°C shut down o/p voltage, automatically recover after cooling.	
Environment	Working TEMP.	-40~+60°C (see below derating curve)	
	Working Humidity	20~90%RH, non-condensing	
	Storage TEMP. Humidity	-40~+80°C , 10~95%RH	
	TEMP. coefficient	±0.03%/°C (0~50°C)	
	Vibration	10~500Hz, 5G 10min./1 cycle,period for 60min. each along X,Y,Z axes	
Safety& EMC	Safety standards	UL8750+UL1310	
	Withstand voltage	I/P-O/P:1.88KVAC	
	Isolation resistance	I/P-O/P:100MQ/50VDC/25°C/70%RH	
	EMC EMISSION	FCC 47 CFR Part 15 ,Subpart B	
others	Net. Weight	2.2Kg	
	Size	301*108*46mm (L*W*H)	
	packing	330*220*245mm/8pcs /CTN	G.W.:21.08KG/CTN





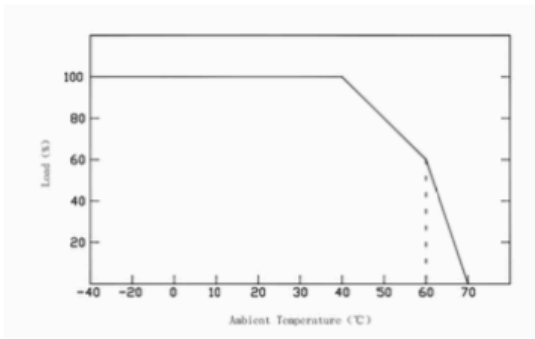
ION LIGHTING™
architectural lighting & design

ION-KVG-C12300-DWJ ION-KVG-C24288-DWJ

Triac/0-10V/1-10V/Potentiometer/10V PWM 5-in-1 Dimmable led driver
Class 2 muti-channels 288W 300W

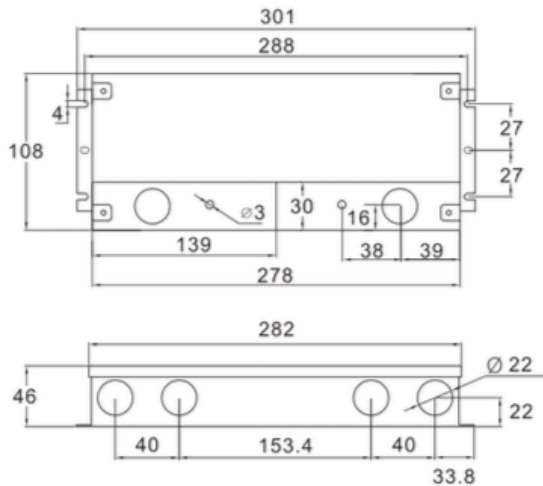
Notes	<p>1. All parameters if NOT specially mentioned are measured at 120VAC input , rated load and 25°C of ambient temperature.</p> <p>2. To extend the driver's using life ,please reduce the loading at lower input voltage.</p>
--------------	---

Derating Curve



※ To extend their life, please refer to the Derating Curve and derate according to the temperature.

Mechanical Specification



Unite: mm
Tolerance:P 0.5-2mm

- ※ Input wire 18AWG Black and White to be connected to AC L and N, Green wire go ground.
- ※ Output cable 2*16AWG, Red (+) to LED Positive side (+), "Black" (-) to LED Negative side (-).
- Three groups output cables of KVG-C12180-DWJ and five groups of KVG-C-24192-DWJ
- ※ Dimming cable 2*18AWG, DIM (+) Purple to 0/1-10V dimmer signal(+), DIM (-) Grey to 0/1-10V dimmer signal (-).
- ※ Please DO NOT connect "DIM-" to "LED-", "DIM+" to "LED+", or other incorrect connection.
- ※ Please make sure you connect these correctly otherwise your product will not function correctly and could be damaged.
- ※ Note: Any other requests we can customized.





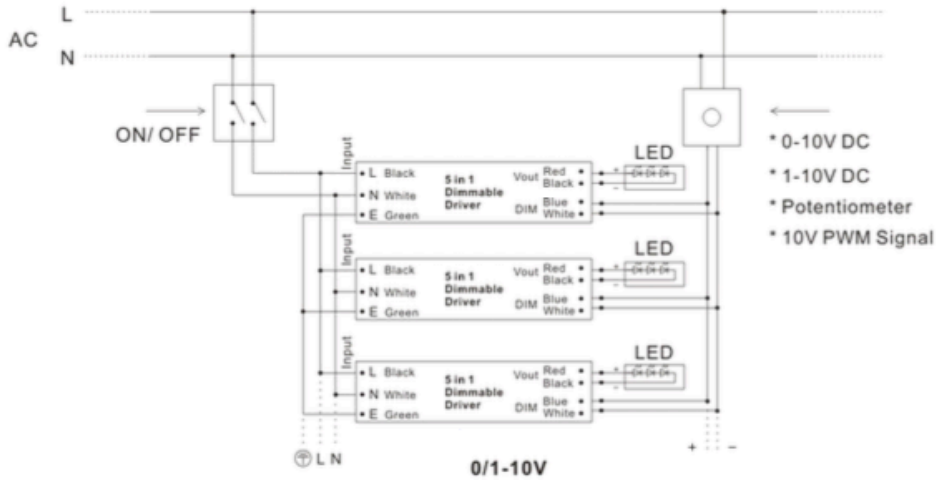
ION LIGHTING™
architectural lighting & design

ION-KVG-C12300-DWJ ION-KVG-C24288-DWJ

Triac/0-10V/1-10V/Potentiometer/10V PWM 5-in-1 Dimmable led driver
Class 2 muti-channels 288W 300W

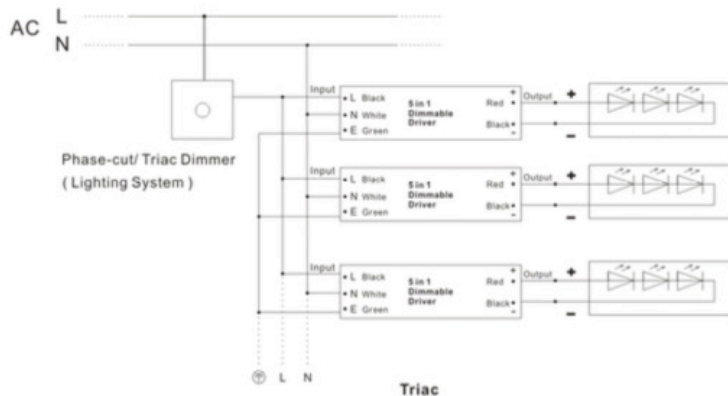
■ Dimming Operation and Connecting Diagram

✂Using two ways of dimming at the same time, you must be assured that LED lighting is up to the max. Brightness then you could operate with the other dimming;



✂Using one dimming ---TRIAC/Phase cut dimming

- 1.The Pulse-Width Modulation (PWM) of output voltage can be adjusted through input terminal of the AC phase line(L) by connection a phase /Triac dimmer of lighting system.
- 2.Working with forward phase /leading edge ,MLV and Reverse phase /trailing edge ,ELV,TRIAC dimmers
- 3.Min loading is about 10%
- 4.Please try to use dimmers with power at least 1.5 times as the output power of the driver.





ION LIGHTING™
architectural lighting & design

ION-KVG-C12300-DWJ ION-KVG-C24288-DWJ

Triac/0-10V/1-10V/Potentiometer/10V PWM 5-in-1 Dimmable led driver
Class 2 multi-channels 288W 300W

※ 0-10V/1-10V dimming

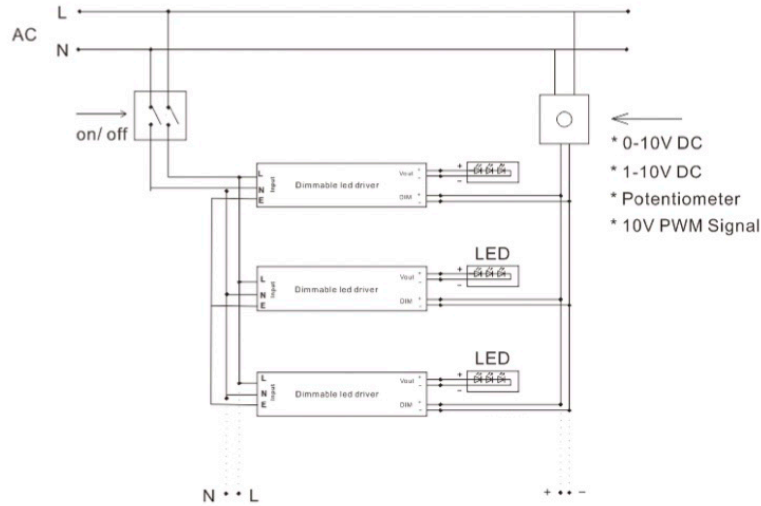


Diagram 1

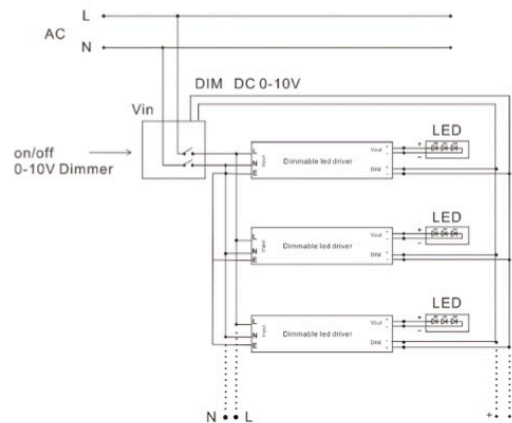


Diagram 2

※To extend their life, please refer to the Derating Curve and derate according to the temperature.

■ Instruction:

- 1) This driver should be installed by qualified and professional person.
- 2) Please make sure the driver is installed with adequate ventilation around it to allow for heat dissipation.
- 3) Ensure that wiring is correct before test in order to avoid light and power supply damage.

